



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

IN THE MATTER OF

DAVID P. LITTELL
COMMISSIONER

BORALEX ASHLAND, LP)
ASHLAND, AROOSTOOK COUNTY, MAINE)
WOODASH UTILIZATION PROGRAM LICENSE)
#S-021177-SE-G-M (APPROVAL WITH CONDITIONS))
(*MODIFIED)) MINOR REVISION

*This Order modified by the Board of Environmental Protection (Board), on December 17, 2009, in response to the appeal by Boralex Ashland LP removes Special Conditions #2, #3 and #4, and removes or revises, as appropriate, the associated findings and conclusions regarding manganese.

Pursuant to the provisions of the *Maine Hazardous Waste, Septage and Solid Waste Management Act*, 38 M.R.S.A. §§ 1301 to 1319-Y, and *Agronomic Utilization of Residuals*, 06-096 CMR 419 (last amended December 19, 1999), and the *Solid Waste Management Rules: Water Quality Monitoring, Leachate Monitoring and Waste Characterization*, 06-096 CMR 405 (last amended June 16, 2006, and the *Solid Waste Management Rules: Beneficial Use of Solid Wastes*, 06-096 CMR 418 (last amended June 16, 2006), the Department of Environmental Protection (Department) has considered the application of BORALEX ASHLAND, LP (Boralex Ashland or applicant) with its supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: Boralex Ashland, LP requests approval to modify Department Order #S-021177-SE-B-R.

B. History:

- (1) On November 4, 1993, the Department issued Order #S-021177-SE-A-N which approved a woodash utilization program for Northeast Empire Limited Partnership #2 (NELP#2).
- (2) On May 9, 2002, the Department issued Order #S-021177-SX-D-T which approved the transfer of NELP#2's Department-issued licenses to Boralex Ashland, Inc.
- (3) On June 21, 2002, the Department issued Order #S-021177-SE-B-R which renewed Boralex Ashland's woodash utilization program license, and approved the transition of their program into the new requirements of 06-096 CMR 419, which replaced *Rules for Land Application of Sludge and Residuals*, 06-096 CMR 567 (last amended January 4, 1994, repealed and replaced July 19, 1999).

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- (4) On January 8, 2007, the Department issued Order #S-021177-SX-H-T which approved the transfer of Boralex Ashland's Department-issued licenses to Boralex Ashland, LP.

C. Application Summary: Boralex Ashland proposes to: modify its wood ash utilization program license to allow continued distribution of wood ash having a concentration exceeding the screening standard in 06-096 CMR 418 Appendix A for manganese; apply wood ash at a rate based on the liming requirements of the soil or on the crop uptake rate for phosphorus—whichever is most limiting--and not on the potassium requirements of the soil; and, not analyze for soil fertility or for (background) manganese on farmland when woodash is distributed through direct sales in bulk form.¹

2. FACILITY DESCRIPTION

Boralex Ashland operates a 39.6-megawatt wood-fired electricity generation facility in Ashland, Maine that generates 9,500 to 14,500 conditioned (35% moisture) tons of woodash annually. The woodash is conveyed to an enclosed ash silo, metered out of the silo and conditioned to 35% moisture, and discharged to and stored in a building at the facility. The woodash is periodically removed from the storage building and transported to utilization sites where it is directly land spread or temporarily field stacked when ground conditions are unsuitable for landspreading.

3. RESIDUAL SUITABILITY

The applicant has performed analyses for total inorganic compounds in accordance with 06-096 CMR 419(4)(A) and (B), 06-096 CMR 419(7)(A)(2), (3) and (4), and 06-096 CMR 405(6)(D)(2)(d). The results indicate that all are within the applicable limits in 06-096 CMR 419, Table 419.4 and in 06-096 CMR 418, Appendix A.

4. SAMPLING AND ANALYTICAL WORK PLAN

The applicant has submitted a Sampling and Analytical Work Plan that meets the standards in 06-096 CMR 405.

¹ The applicant's request for a minor revision to the utilization program regarding manganese was in response to guidance on this matter provided by the Department. However, the requirement for the testing of soil for background manganese evolved during the application processing period, particularly as a result of soil test information from another wood ash utilization program operator and reported to the Department. The applicant subsequently opposed the conditions pertaining to manganese and appealed the license.

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5. AGRONOMIC BENEFIT

The applicant has prior approval to distribute woodash as a liming agent and as a potassium source for agricultural fields. The applicant has performed residual analyses for baseline nutrients, total inorganic compounds, and calcium carbonate equivalents (CCE) in accordance with 06-096 CMR 405 (D)(2)(a), (c) and (d). Results of these analyses indicate that the woodash has an average 31.6% CCE and a potassium concentration of 2.8%.

The applicant proposes to apply woodash at a rate based upon the liming requirements of the soil, as directed by soil test reports, and to eliminate the requirement in Department Order #S-021177-SE-B-R limiting the loading rate based on the potassium requirements of the soil.

The applicant will continue to reduce application in those areas sensitive to phosphorus loading (e.g., direct watersheds of water bodies most at risk from new development) to a rate no greater than necessary to supply the phosphorus requirements of the target crop. Phosphorus need will be calculated based on soil test reports, actual availability of this nutrient in the woodash, crop uptake rate, and application of other phosphorus-containing fertilizers.

The Department finds the applicant's proposal satisfactory provided woodash application rates are based on the liming requirement of site soils or on the crop uptake rate for phosphorus —whichever is most limiting—and that application rates not exceed a maximum of two tons of CCE per acre per year if top-dressed, and three tons of CCE if incorporated.

6. RISK MANAGEMENT

The applicant proposes to distribute woodash as a lime substitute through direct sales in bulk form. The applicant has submitted a copy of Product Information Literature that clearly states the nutrients contained in Boralex Ashland woodash and Best Management Practices sheet that provides guidance on setbacks, storage and loading rate limitations when spreading and storing woodash. This information will be provided to woodash recipients to assist in calculating quantities of woodash needed for soil and crop nutrient management, and in woodash handling and storage. The applicant proposes to not routinely analyze soil on farmland when woodash is distributed through direct sales in bulk form. The applicant states that farmers have an economic incentive to conduct soil tests, and will only purchase the amount of woodash needed to properly adjust soil pH and to improve soil fertility.

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The Department finds that this is acceptable, provided the woodash does not exceed the applicable screening standards in 06-096 CMR 419, Table 419.4 for heavy metals, the applicant does not distribute more bulk woodash to end users in a given year than can be utilized at their site in that year, and that at any site without a site-specific license, wood ash is not stored for more than two (2) years.

7. FINANCIAL AND TECHNICAL ABILITY

- A. Financial Ability: The applicant has estimated that the cost of operating the land application program to be approximately \$200,000.00 annually. The applicant submitted evidence that Boralex Ashland has assets available to operate the program in a manner consistent with State environmental standards.
- B. Technical Ability: The applicant has retained the services of New England Organics. NEO has extensive experience with management of woodash and other residual land application projects throughout New England.

8. PROTECTION OF THE WATERS OF THE STATE

The Department finds that limiting woodash spreading to established agricultural sites will meet the intent of the setbacks required under 06-096 CMR 419(4)(G) and 06-096 CMR 400(4)(E)(1)(b). The applicant has submitted a copy of Best Management Practices (BMPs) to be followed by recipients/end users of woodash. The BMP sheet provides a list and/or description of setbacks to be observed when spreading and storing woodash. The information provided is also adequate to ensure that storage sites will meet the general siting and design standards in 06-096 CMR 419(12)(A) and (B) for storage and to minimize surface water contact.

9. NUISANCES AND AIR QUALITY

Woodash does not produce objectionable odors during handling and is unlikely to cause odor nuisances at the site where it is handled. The woodash will be quenched with water to prevent fires and to assure that no dust nuisances are created.

Woodash utilization and distribution will not generate noise in excess of that generated during normal operations at any site proposed or currently used for woodash utilization.

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10. TRAFFIC

The applicant does not propose any change that would increase traffic.

11. UTILITIES

No new utilities are required for any of the activities proposed by the applicant.

12. EROSION

No soil disturbance activities are proposed by the applicant.

13. FLOODING

The applicant does not propose any activity that would affect the flooding potential of any area.

14. RECORD KEEPING AND REPORTING

A. Record Keeping: The Department finds that the applicant should maintain records of woodash analyses, soil sampling results, records of amounts and dates of woodash spread on various fields, and the Department's Annual Ash Utilization Report. Additionally, any other records or correspondence pertaining to the woodash program, or required by the Department should be kept, including file copies of landspreading site applications and complaints.

B. Reporting: The Department finds that the applicant should report wood ash analytical results to the Department within 30 days of receipt. The applicant is required to submit an annual report of utilization activities that meets the standards in 06-096 CMR 419(6)(C) to the Department by February 28th of each following year.

15. ALL OTHER

All other Findings of Fact, not modified by this Order, remain as set forth in Department Order #S-021177-SE-B-R, as amended.

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BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The proposed project will not pollute any water of the State, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance, provided that:
 - A. The maximum application rate for wood ash does not exceed two (2) tons of CCE per acre per year if top-dressed, and three (3) tons of CCE if incorporated; and
 - B. Wood ash is applied at a rate based upon the liming requirements of the soil, as directed by soil test reports; and
 - C. The loading rate of the wood ash is based on the phosphorus uptake rate of the target crop, if that rate is more restrictive than the rate based on the liming requirements of the soil; and
 - D. The spreading of wood ash is limited to established agricultural sites; and
 - E. At any site without a site-specific license, the wood ash does not exceed the applicable screening standards in 06-096 CMR 419, Table 419.4 for heavy metals; and
 - F. The applicant does not distribute more wood ash to an end user than can be utilized at a site in that year; and
 - G. At any site without a site-specific license, wood ash is not stored for more than two (2) years.
2. The applicant has the financial and technical ability to develop the project in a manner consistent with State environmental standards.
3. The applicant has made adequate provisions for traffic movement of all types into, out of, and within utilization sites.
4. The proposed project fits harmoniously into the existing natural environment and will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipalities or in neighboring municipalities.
5. The proposed facilities will be on soils types suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sedimentation.

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6. The proposed facilities will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur.
7. The applicant has made adequate provisions for utilities including water supplies, sewerage facilities, solid waste disposal and roadways required for the project, and the proposed facilities will not have an unreasonable adverse effect on the existing or proposed utilities and roadways in the municipalities or area served by those services.
8. The activity will not unreasonably cause or increase the flooding of the areas or adjacent properties nor create an unreasonable flood hazard to any structure.

THEREFORE, the Department APPROVES above noted application of BORALEX ASHLAND LP, SUBJECT TO THE ATTACHED CONDITIONS and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached as Appendix A.
2. The maximum application rate for wood ash shall not exceed two (2) tons of CCE per acre per year if top-dressed, and three (3) tons of CCE if incorporated.
3. Wood ash shall be applied at a rate based upon the liming requirements of the soil, as directed by soil test reports.
4. The loading rate of the wood ash shall be based on the phosphorus uptake rate of the target crop, if that rate is more restrictive than the rate based on the liming requirements of the soil.
5. The spreading of wood ash shall be limited to established agricultural sites.
6. At any site without a site-specific license, the wood ash shall not exceed the applicable screening standards in 06-096 CMR 419, Table 419.4 for heavy metals.
7. The applicant shall not distribute more wood ash to an end user than can be utilized at a site in that year.
8. At any site without a site-specific license, wood ash shall not be stored for more than two (2) years.
9. The applicant shall submit to the Department within thirty (30) days of receipt analytical results of wood ash.
10. The applicant shall maintain records of wood ash analyses, soil sampling results, amounts and dates of wood ash spread or stored on various fields, the Department's Annual Ash

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Utilization Report, and any other records or correspondence pertaining to the wood ash utilization program, or required by the Department, including file copies of landspreading site applications and wood ash-related complaints.

11. The applicant shall submit to the Department by February 28th of each following year an annual report of utilization activities that meets the standards in 06-096 CMR 419(6)(C).

DONE AND DATED AT AUGUSTA, MAINE THIS _____ DAY
OF _____, 2009.

BOARD OF ENVIRONMENTAL PROTECTION

BY: _____
Susan M. Lessard, Chair

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE APPEAL PROCEDURES.

Date of initial receipt of application: September 9, 2006

Date of application acceptance: October 2, 2006

Date filed with the Board of Environmental Protection: June 29, 2009

Date modified by the Board of Environmental Protection (on appeal): December 17, 2009

This Order prepared by Jay Duncan, Bureau of Remediation & Waste Management.

XJD60636

APPENDIX A

STANDARD CONDITIONS TO ALL SOLID WASTE FACILITY LICENSES

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL. VIOLATIONS OF THE CONDITIONS UNDER WHICH A LICENSE IS ISSUED SHALL CONSTITUTE A VIOLATION OF THAT LICENSE, AGAINST WHICH ENFORCEMENT ACTION MAY BE TAKEN, INCLUDING REVOCATION.

1. **Approval of Variations from Plans.** The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed by the licensee. Any consequential variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
2. **Compliance with All Applicable Laws.** The licensee shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
3. **Compliance with All Terms and Conditions of Approval.** The licensee shall submit all reports and information requested by the Department demonstrating that the licensee has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
4. **Transfer of License.** The licensee may not transfer the solid waste facility license or any portion thereof without approval of the Department.
5. **Initiation of Construction or Development Within Two Years.** If the construction or operation of the solid waste facility is not begun within two years of issuance or within 2 years after any administrative and judicial appeals have been resolved, the license lapses and the licensee must reapply to the Department for a new license unless otherwise approved by the Department.
6. **Approval Included in Contract Bids.** A copy of the approval must be included in or attached to all contract bid specifications for the solid waste facility.
7. **Approval Shown to Contractors.** Contractors must be shown the license by the licensee before commencing work on the solid waste facility.
8. **Background of key individuals.** A licensee may not knowingly hire as an officer, director or key solid waste facility employee, or knowingly acquire an equity interest or debt interest in, any person convicted of a felony or found to have violated a State or federal environmental law or rule without first obtaining the approval of the Department.
9. **Fees.** The licensee must comply with annual license and annual reporting fee requirements of the Department's rules.

**ADDITIONAL STANDARD CONDITIONS FOR
SOLID WASTE DISPOSAL FACILITIES**

- 10. Recycling and Source Reduction Determination for Solid Waste Disposal Facilities.** This condition does not apply to the expansion of a commercial solid waste disposal facility that accepts only special waste for landfilling.

The solid waste disposal facility shall only accept solid waste that is subject to recycling and source reduction programs, voluntary or otherwise, at least as effective as those imposed by State law.

- 11. Deed Requirements for Solid Waste Disposal Facilities.** Whenever any lot of land on which an active, inactive, or closed solid waste disposal facility is located is being transferred by deed, the following information must be recorded in the Registry of Deeds:

- A. The type of facility located on the lot and the dates of its establishment and closure.
- B. A description of the location and the composition, extent, and depth of the waste deposited.
- C. The disposal location coordinates of asbestos wastes must be identified.